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HUMBOLDT NATIONAL FOREST

SENSITIVE PLANT FIELD GUIDE



8 mm

Ruby Mountain primrose, *Primula capillaris*

HUMBOLDT NATIONAL FOREST
SENSITIVE PLANT
FIELD GUIDE

BY

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INTRODUCTION

The purpose of this guide is to present nontechnical information that can be used by Forest Service personnel with a minimum of botanical training to identify our sensitive plants. Sensitive plants are those species which are Federally listed or candidate species and those listed in the Nevada Natural Heritage Data Base as endangered, threatened, or limited in abundance throughout their range.

Project clearances should be conducted for all R-4 Threatened, Endangered, and Sensitive (TES) species. This guide should be of value in assisting with plant identifications. When TES species are located in a proposed project area, identification should be verified by a professional botanist. R-4 policy and details on project clearances are covered in Chapt. 1 of the Sensitive Plant Handbook.

For additional information on the Humboldt TES plant program contact the Steve Anderson at the Humboldt Supervisor's office at (702) 738-5171 or Regional Botanist Duane Atwood at (801)-625-5599.

The Nevada Natural Heritage Program Botanist is Jim Morefield, he can be reached at the Carson City office at (702)-687-4245. The TES contact in Nevada for the U.S. Fish and Wildlife Service is Randy McNatt; he can be reached at (702)-784-5227.

ACKNOWLEDGEMENTS

Completion of this field guide was made possible as a result of contributions from several individuals and organizations. Threatened and Endangered Plants of Nevada, Mozingo and Williams (1980) was used extensively for plant descriptions and illustrations. Additional information came from Forest Service Regional Office files and Supervisor's Office files and the various state floras. Robin Spahr produced the camera ready copy for printing. Descriptions were compiled by Duane Atwood and reviewed by Steve Anderson and Mitchel White. We wish to thank Margaret Williams and Dave Weixelman for providing photos and assistance on sensitive plants.

We wish to thank Kaye H. Thorne for original line drawings of *Draba pennellii*, *Erigeron cavernensis*, and *Eriogonum lewisii*. The illustration of *Astragalus yoder-williamsii* is reprinted by permission from Intermountain Flora, Robin D. Brickman, 3B:97, 1989. The illustration of *Dimersia howellii* is reprinted by permission from Vascular Plants of the Pacific Northwest 5:159, C.L. Hitchcock, A. Cronquist, M. Ownbey, and J.W. Thompson, 1977. The illustration of *Silene nachlingerae* is reprinted by permission from Brittonia, Mr. Arnold Tiehm, 37(4):345, 1985. Several individuals provided photographs and credit is acknowledged in the text by each photograph.

DEFINITIONS AND CODES

FEDERAL STATUS (FR 50, number 188:39526-39527. 1985)

- E** Endangered (none on the Humboldt) - taxa formally listed as endangered.
- T** Threatened (none on the Humboldt) - Taxa formally listed as threatened.
- P** Proposed E or T (none on the Humboldt) - taxa proposed to be formally listed as endangered or threatened
- C1** Notice of Review, Category 1 (substantial biological information of file to support the appropriateness of proposing to list as endangered or threatened).
- C2** Notice of Review, Category 2 (current information indicates that proposing to list as endangered or threatened is possible. Appropriate, but substantial biological information is not on file to support an immediate rulemaking).
- C2*** Category 2, and the taxon is possibly extinct.
- 3A** Taxa for which the USFWS has persuasive evidence of extinction.
- 3B** Names that, on the basis of current taxonomic understanding, do not represent taxa meeting the Endangered Species Act's definition of 'species.'
- 3C** Taxa that have proven to be more abundant or widespread than was previously believed, and/or those that are not subject to any identifiable threat.

GLOBAL RANK (As determined by The Nature Conservancy)

- G1** Critically imperiled globally because of extreme rarity (5 or fewer occurrences, or very few remaining individuals), or because of some factor of its biology making it especially vulnerable to extinction. (Critically endangered throughout range).
- G2** Imperiled globally because of rarity (6 to 20 occurrences) or because of other factors demonstrably making it very vulnerable to extinction throughout its range. (Endangered throughout range).

- G3** Either very rare and local throughout its range or found locally (even abundant at some of its locations) in a restricted range, or because of other factors making it vulnerable to extinction throughout its range; in the range of 21 to 100 occurrences (threatened throughout range).
- G4** Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.
- G5** Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.
- GU** Possibly in peril range-wide, but status uncertain; more information needed.
- GH** Historically known; may be rediscovered.
- GX** Believed to be extinct throughout range; historical records only, continue search.

STATE RANK

- S1** Critically imperiled in the state because of extreme rarity (5 or fewer occurrences, or very few remaining individuals), or because of some factor of its biology making it especially vulnerable to extirpation from the state (critically endangered in state).
- S2** Imperiled in the state because of rarity (6 to 20 occurrences), or because of other factors demonstrably making it very vulnerable to extirpation from the state (endangered in state).
- S3** Rare in the state (on the order of 20 + occurrences (threatened in state)).
- SU** Possibly in peril in the state, but status uncertain; more information needed.
- SH** Historically known in the state; may be rediscovered.
- SX** Apparently extirpated from the state.

GLOSSARY OF PLANT TERMS

Achene. A small dry, hard, 1-loculed, 1-seeded indehiscent fruit.

Acuminate. Gradually tapering to a point, the sides somewhat concave.

Acute. Tapering to the apex with straight sides.

Alternate. Borne between, not in front of , as with stamens when between the petals.

Annual. Plants growing from seed and producing flowers and seeds and drying the same year.

Anther. The pollen-bearing part of the stamen.

Ascending. Growing obliquely upward, often curving.

Auricle. An ear shaped appendage.

Banner. Upper petal of a papilionaceous flower, as in the sweet pea.

Basal. Related to, or located at the base.

Beak. A prolonged, usually narrowed tip of a thicker organ, as in some fruits and petals.

Bladdery. Thin and inflated.

Bract. A reduced leaf subtending a flower, usually associated with the inflorescence.

Caespitose. Growing in tufts.

Calyx. Outer whorl of flowering parts; collective term for all the sepals of a flower.

Capsule. A dry fruit of more than 1 carpel which opens to release the seeds.

Caudex. The woody base of an otherwise herbaceous perennial.

Cauline. Belonging to or on the stem.

Ciliate. Fringed with marginal hairs.

Clasping. Leaf partly or wholly surrounding the stem.

Corolla. Inner whorl of floral parts; collective name for petals.

Culm. The type of hollow or pithy slender stem found in grasses and sedges.

Cuneate. Wedge-shaped.

Decumbent. Lying down, but with tip ascending.

Dentate. Having the margins cut with sharp teeth which are not directed forward.

Denticulate. Minutely toothed.

Entire. Undivided; the margin continuous, not incised or toothed.

Erect. Upright in relation to the ground, or sometimes perpendicular to the surface of attachment.

Filament. A thread, especially the stalk of an anther.

Fruit. The ripened pistil with all of its accessory parts.

Glabrous. Without hairs.

Gland. A depression, protuberance, or appendage which secretes a usually sticky fluid.

Glandular. bearing glands.

Glaucous. Covered or whitened with a bloom.

Globose. Spherical or rounded.

Habitat. The part of the environment where a plant grows.

Herbaceous. Pertaining to an herb; opposed to woody; having the texture or odor of a foliage leaf; dying to the ground each year.

Hirsute. Rough, with coarse, stiff hairs.

Hyaline. Translucent.

Inflated. Blown up; bladdery.

Inflorescence. The flower cluster of a plant.

Internode. The portion of stem between 2 connective nodes.

Involucre. A whorl of bracts subtending a flower cluster, as in the heads of Compositae.

Lanceolate. Lance-shaped; much longer than broad, tapering from below the middle to the apex and to the base.

Leaflet. Segment of a compound leaf.

Linear. Resembling a line; long and narrow, of uniform width, as the leaf blades of grasses.

Nerve. A simple vein or slender rib of a leaf or bract.

Node. The joint of a stem; the point of insertion of a leaf or leaves.

Nut. A hard, indehiscent, usually 1-seeded fruit, produced from a compound ovary.

Nutlet. A small nut.

Oblanceolate. Inversely lanceolate.

Oblong. Much longer than broad, with nearly parallel sides.

Obovate. Shaped like the longitudinal section of an egg, but with the broadest part toward the tip.

Obtuse. Blunt or rounded at the end.

Ochroleucous. Yellowish white.

Opposite. Set against, as leaves when 2 at a node; 1 part in front of another, as a stamen in front of a petal.

Ovary. The part of the pistil that contains the ovules.

Ovate. With the outline of an egg in longitudinal section, the broadest end downward.

Palmate. Lobed or veined where the branches arise from a common point, like the fingers of a hand.

Pappus. A crown of bristles on the summit of the fruit in a Composite.

Peduncle. The stalk of a flower or of a flower cluster.

Pendulous. Hanging downward; pendent.

Perennial. Of three or more years duration.

Perianth. The floral envelopes; collectively, the calyx and corolla, especially when they are alike.

Perigynium. The scalelike organ surrounding the pistil in Carex.

Petal. One of the leaves of a corolla, usually colored.

Petiolate. With a petiole.

Petiole. A leaf stalk.

Pilose. Bearing soft and straight spreading hairs.

Pinnate. A compound leaf, having leaflets arranged on each side of a common petiole; featherlike.

Pistil. The ovule-bearing organ of a flower, consisting of stigma and ovary, usually with a style between; gynoecium.

Phyllary. An individual bract of the involucre of a Composite.

Pod. Any dry, dehiscent fruit, especially a legume.

Prostrate. Lying flat upon the ground.

Pubescent. Covered with short, soft hairs; downy bases of hairs.

Raceme. A simple, elongated, indeterminate inflorescence with each flower subequally pedicelled.

Ray. A primary branch of an umbel; in Compositae, the ligule of a ray flower bearing the flowers in the head.

Rhizomatous. Having rhizomes.

Rhizome. An underground stem or rootstock, with scales at the nodes and producing leafy shoots on the upper side and roots on the lower side.

Rosette. A crowded cluster of radiating leaves appearing to rise from the ground.

Scale. Any thin, scarious bract; usually a vestigial leaf.

Sepal. A leaf or segment of the calyx.

Serrate. Saw-toothed, the sharp teeth pointed forward.

Sessile. Attached directly by the base, not stalked, as a leaf without a petiole.

Shrub. A woody plant smaller than a tree and with several to many stems.

Silicle. A short silique, typically less than twice as long as wide.

Silique. A many-seeded capsule of the Brassicaceae, with 2 valves splitting from the bottom and leaving the placentae with the false partition (replum) between them.

Simple. Unbranched, as a stem or hair; not compound, as a leaf; single, as a pistil of one carpel.

Spike. An elongated rachis of sessile flowers or spikelets.

Spikelet. A secondary spike; the ultimate flower cluster in grasses, consisting of 2 glumes and 1 or more florets, also in sedges.

Stamen. The male organ of the flower which bears pollen.

Staminode. A sterile stamen, or what corresponds to a stamen.

Stellate. Star-shaped.

Stigma. The receptive part of the pistil on which the pollen germinates.

Stipitate. With a stipe or stalk.

Stipule. One of the pair of usually foliaceous appendages found at the base of the petiole in many plants.

Stolon. A modified stem bending over and rooting at the tip; or creeping and rooting at the nodes.

Style. The contracted portion of the pistil between the ovary and the stigma.

Sub-. A prefix usually signifying somewhat, slightly, rather, or almost.

Throat. The orifice of a gamopetalous corolla; the expanded portion between the limb and tube proper.

Tomentose. With tomentum; covered with a rather short, densely matted, soft white wool.

Tooth. Any small marginal lobe.

Umbel. A flat or convex flower cluster in which the pedicels arise from a common point, like the rays of an umbrella.

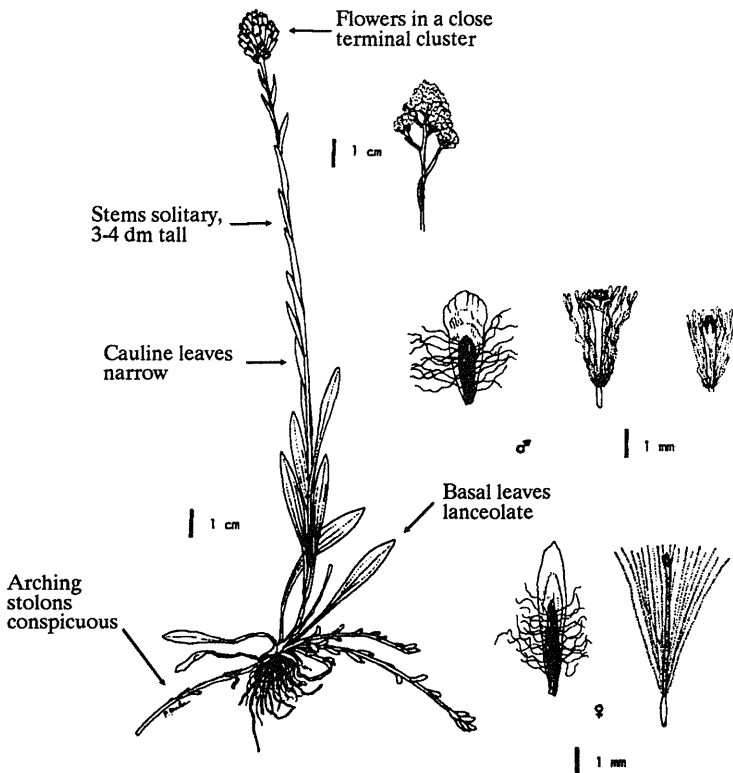
Viscid. Sticky; glutinous.

Wing. A thin, usually dry extension bordering an organ; a lateral petal of a papilionaceous flower.

SENSITIVE SPECIES ON THE HUMBOLDT NATIONAL FOREST

Scientific Name Common name	Status	Distribution by District				
		Mtn. City	Ruby Mtns.	Jarbridge	Ely	Santa Rosa
<i>Antennaria arcuata</i> Meadow pussytoes	C2, G2/S1	Y				
<i>Astragalus robbinsii</i> var. <i>occidentalis</i> Lamoille Canyon milkvetch	C2, G5T2/S1		Y			
<i>Astragalus uncialis</i> Currant milkvetch	C2, G2/S2				Y	
<i>Astragalus yoder-williamsii</i> Osgood milkvetch	C2, G?/S?					Y
<i>Cymopterus nivalis</i> Snowy spring parsley	3C, G?/S?		Y			
<i>Dimersia howellii</i> Howell dimersia	3C, G4/S4					Y
<i>Draba pennellii</i> Pennell draba	C2, G2/S2				Y	
<i>Erigeron cavernensis</i> Snake Mtn. erigeron	C2, G1/S?				Y	
<i>Erigeron latus</i> Broad fleabane	C2, G2/S?	Y				
<i>Eriogonum holmgrenii</i> Holmgren buckwheat	C2, G1/S1				Y	
<i>Eriogonum lewisi</i> Lewis's buckwheat	C2, G1/S1	Y		Y		
<i>Lewisia maguirei</i> Maguire lewisia	C2, G1/S1				Y	
<i>Penstemon moriahensis</i> Mt. Moriah penstemon	3C, G2/S1				Y	

Scientific Name Common name	Status	Distribution by District				
		Mtn. City	Ruby Mtns.	Jarbridge	Ely	Santa Rosa
<i>Primula capillaris</i> Ruby Mtn. primrose	C2, G1/S1		Y			
<i>Primula nevadensis</i> Nevada primrose	C2, G1/S1				Y	
<i>Silene nachlingerae</i> Nachlinger silene	C2, G2/S2		Y		Y	



ANTENNARIA ARCUATA

Scientific Name: *Antennaria arcuata* Cronq.

Common Name: Meadow pussytoes

Family (common name): Asteraceae or Compositae (Sunflower Family)

Synonyms: None

Global Distribution: Elko County, Nevada and disjunct locations in Blaine County, Idaho, Steen Mountains, Oregon and SW Wyoming

State Distribution: Known only from NE Nevada in Elko County

Ownership: FS and private

Ranger District: Mountain City

Habitat: Small, bare or lichen covered areas in sedge-grass meadows and at the edge of wild hay meadows. Elevation between 5,200-6,400 feet, July-August.

Look-alikes: A unique species, distinct from all others by the arching stolons. The arching stolons are short in the early part of its growth but extend up to 10 cm long when mature.



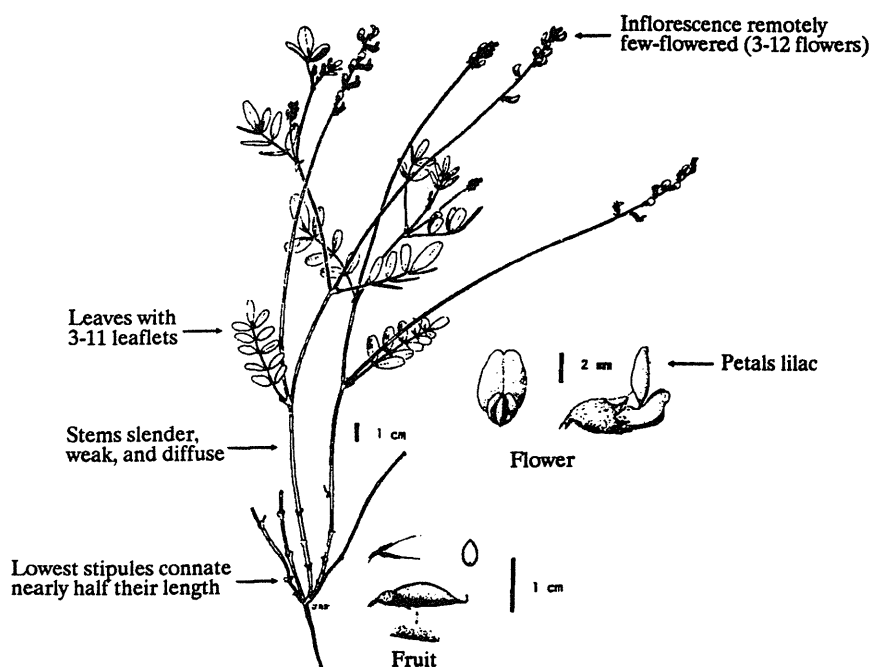
Closeup of *Antennaria arcuata* by M. Williams



Habitat of *Antennaria arcuata* M. Williams



**Species
Distribution**



ASTRAGALUS ROBBINSII VAR. OCCIDENTALIS

Scientific Name: *Astragalus robbinsii* (Oakes) Gray var. *occidentalis* Wats.

Common Name: Lamoille Canyon milkvetch

Family (common name): Fabaceae or Leguminosae (Pea Family)

Synonyms: *Astragalus occidentalis* (Wats.) Jones, *A. labradoricus* var. *occidentalis* (Wats.) Jones, *Atelophragma occidentale* (Wats.) Rydb.

Global Distribution: Elko County, Nevada

State Distribution: Northern Ruby Mountains, mostly Lamoille Canyon, Island Lake, and east Humboldt Mountains of Elko County

Ownership: FS

Ranger District: Ruby Mountains

Habitat: Along stream banks and in moist loam soil of timbered creek beds or sheltered under aspen and willows. Elevation 6,900-10,000 feet, July-August.

Look-alikes: Similar to var. *minor* but recognized by the slender growth habit, few leaves with ample leaflets, remotely few-flowered racemes, and mostly small (1.0-1.5 cm long), short stipitate pods.



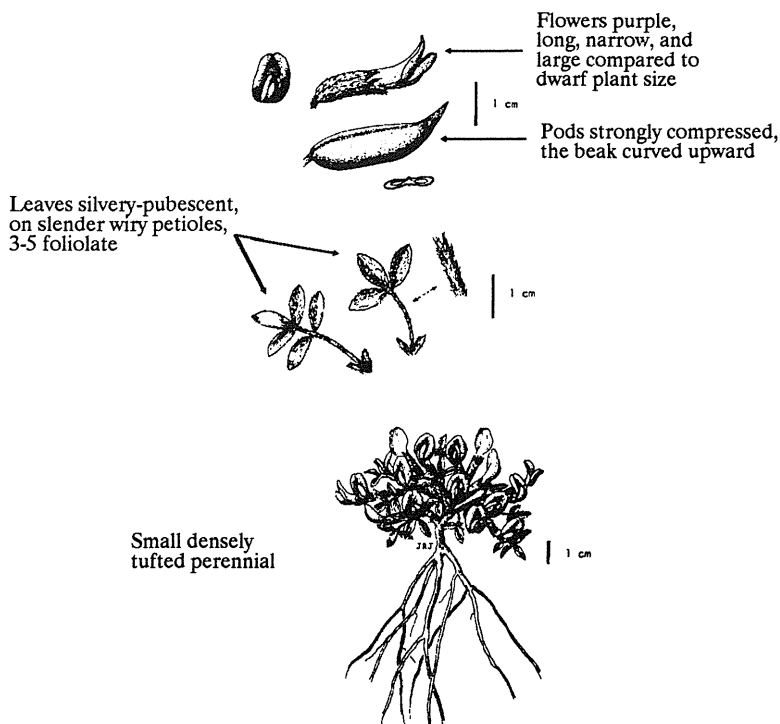
Close-up of *Astragalus robbinsii* var *occidentalis* by F.Smith



Habitat of *Astragalus robbinsii* *occidentalis* by F.Smith



Species
Distribution



ASTRAGALUS UNCIALIS

Scientific Name: *Astragalus uncialis* Barneby

Common Name: Currant milkvetch

Family (common name): Fabaceae or Leguminosae (Pea Family)

Synonyms: None

Global Distribution: Northeastern Nye County, Nevada and adjacent Millard County, Utah

State Distribution: Foothills of the SE side of the White Pine Range and the foothills of the Quinn and Pancake ranges, northeastern Nye County

Ownership: BLM, possibly private and FS

Ranger District: Ely

Habitat: Dry knolls and gullies in saline and, or gravel soils derived from comminuted limestone and in desert pavement at 4,600-6,050 feet elevation, April-May.

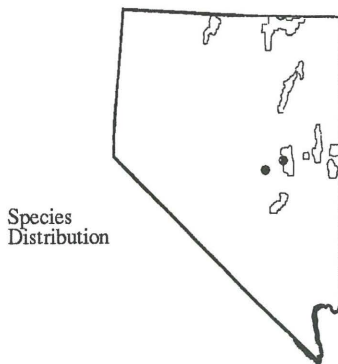
Look-alikes: A distinct species easily recognized from its closest relative, *A. newberryi*, by the few-foliate leaves, silvery aspect, dwarf size, and disproportionately large flowers.

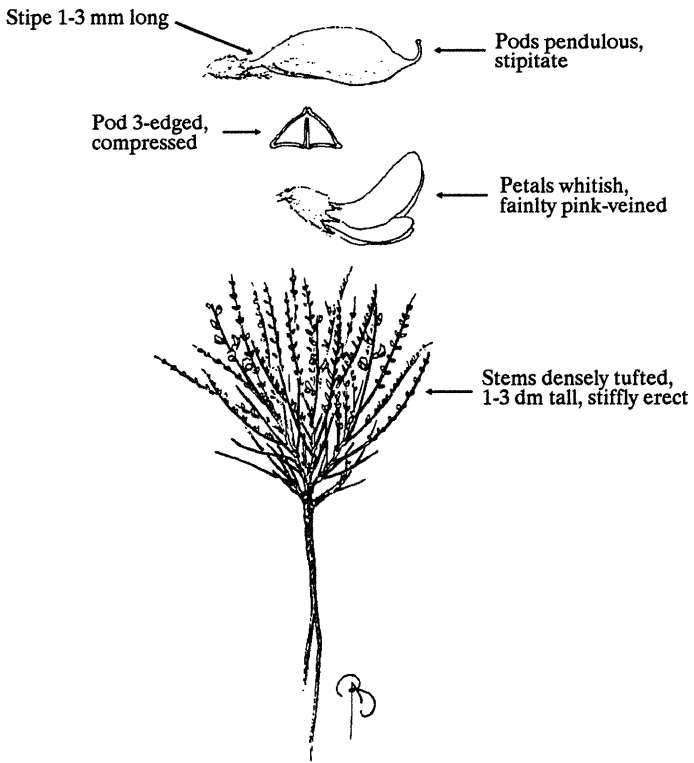


Closeup of *Astragalus uncialis* by M. Williams



Habitat of *Astragalus uncialis* by M. Williams





ASTRAGALUS YODER-WLLIAMSII

Scientific Name: *Astragalus yoder-williamsii* Barneby

Common Name: Osgood Mountain milkvetch

Family (common name): Fabaceae or Leguminosae (Pea Family)

Synonyms: None

Global Distribution: Humboldt County, Nevada and Owyhee County, Idaho

State Distribution: Northern Osgood Mountains

Ownership: BLM, private, and possibly FS

Ranger District: possibly on the Santa Rosa

Habitat: Decomposed granite gravel flats in sagebrush-rabbitbrush communities at 7,100-7,300 feet elevation, late May-mid-July.

Look-alikes: Easily recognized by the densely tufted, stiffly erect habit, pendulous, stipitate, 3-edged pods, and whitish (pink-veined) flowers.



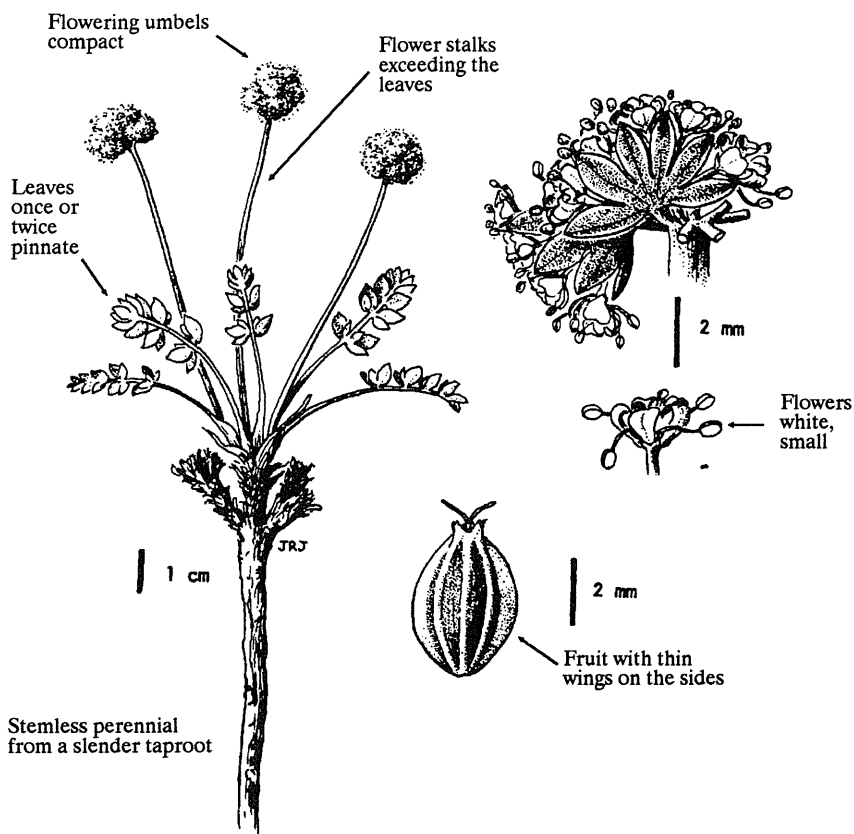
Closeup of *Astragalus yoder-williamsii* by R. Rosentreter



Habitat of *Astragalus yoder-williamsii* by R. Rosentreter

Species
Distribution





CYMPTERUS NIVALIS

Scientific Name: *Cymopterus nivalis* Wats.

Common Name: Snowy spring parsley

Family (common name): Apiaceae or Umbelliferae (Carrot Family)

Synonyms: None

Global Distribution: Elko County, Nevada

State Distribution: Endemic to the Ruby Mountains in Elko County, Nevada

Ownership: FS

Ranger District: Ruby Mountains

Habitat: Dry rocky sites of limestone in subalpine zones north of Angel Lake, 9,000-11,550 feet elevation, July-August.

Look-alikes: Recognized from its nearest relative *C. bipinnatus* by the compact, condensed flowering umbel, white flowers and small size.

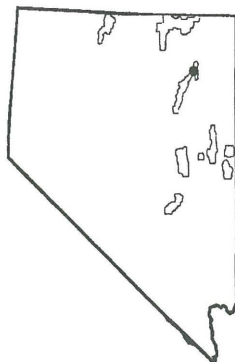


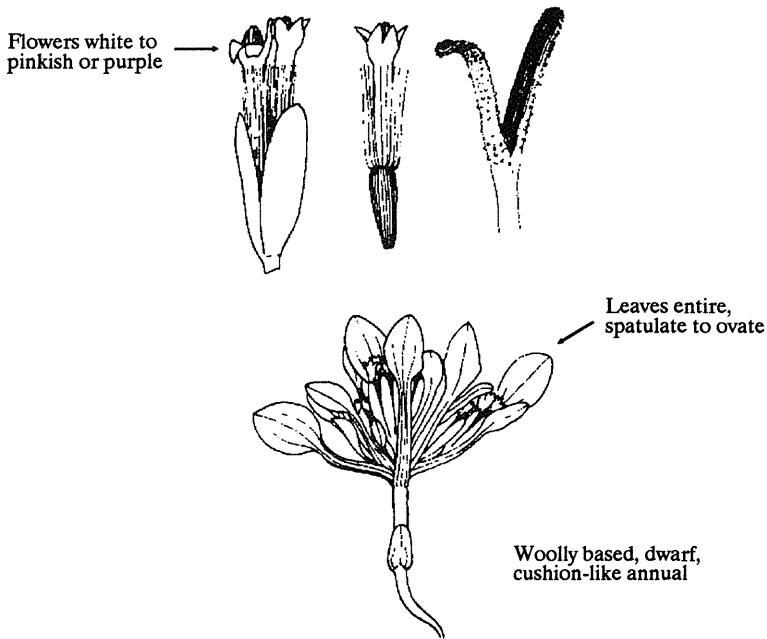
Closeup of *Cymopterus nivalis* by M. Williams



Habitat of *Cymopterus nivalis* by M. Williams

Species
Distribution





DIMERSIA HOWELLII

Scientific Name: *Dimersia howellii* Gray

Common Name: Howell dimersia

Family (common name): Asteraceae or Compositae (Sunflower Family)

Synonyms: *Erminula howellii* Greene

Global Distribution: SE Oregon, NE California, S. Idaho, and NW Nevada

State Distribution: Northwestern Nevada

Ownership: BLM, possibly private and FS

Ranger District: Santa Rosa

Habitat: Dry, gravelly or rocky volcanic soil in the mountains. Associated with sagebrush and other forbs at 3,900-7,600 feet elevation, May-July.

Look-alikes: Easily recognized by the small white to pinkish flowers, woolly base and entire, spatulate to ovate leaves.



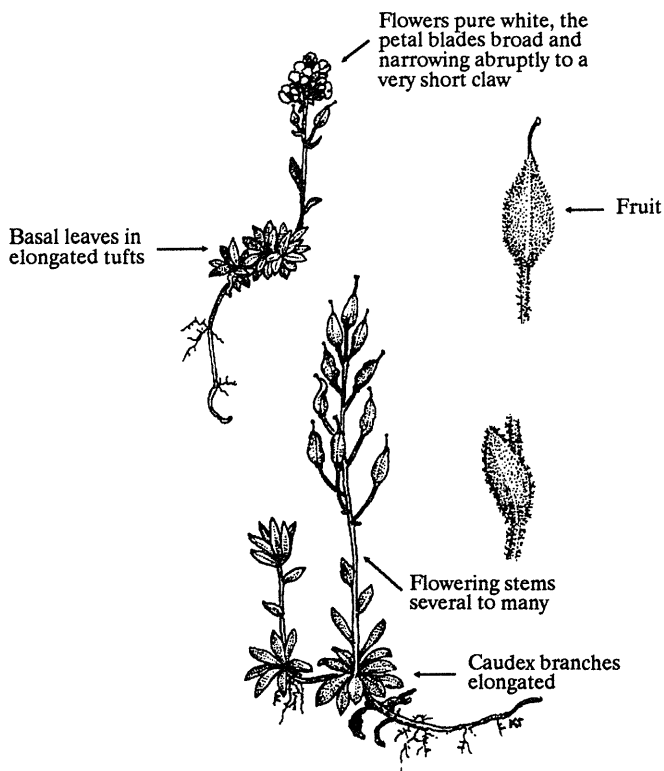
Closeup of *Dimerisia howellii* by R. Rosentreter



Habitat of *Dimerisia howellii* by R. Rosentreter

Species
Distribution





DRABA PENNELLII

Scientific Name: *Draba pennellii* Rollins

Common Name: Pennell draba

Family (common name): Brassicaceae or Cruciferae (Mustard Family)

Synonyms: None

Global Distribution: Endemic to the Schell Creek Range, White Pine County, Nevada

State Distribution: Known only from the head of South fork of Berry Creek in the Schell Creek Range, White Pine County

Ownership: FS

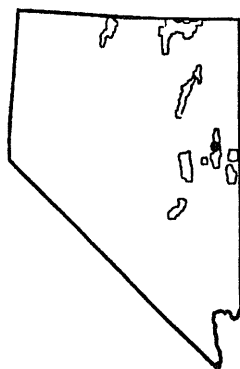
Ranger District: Ely

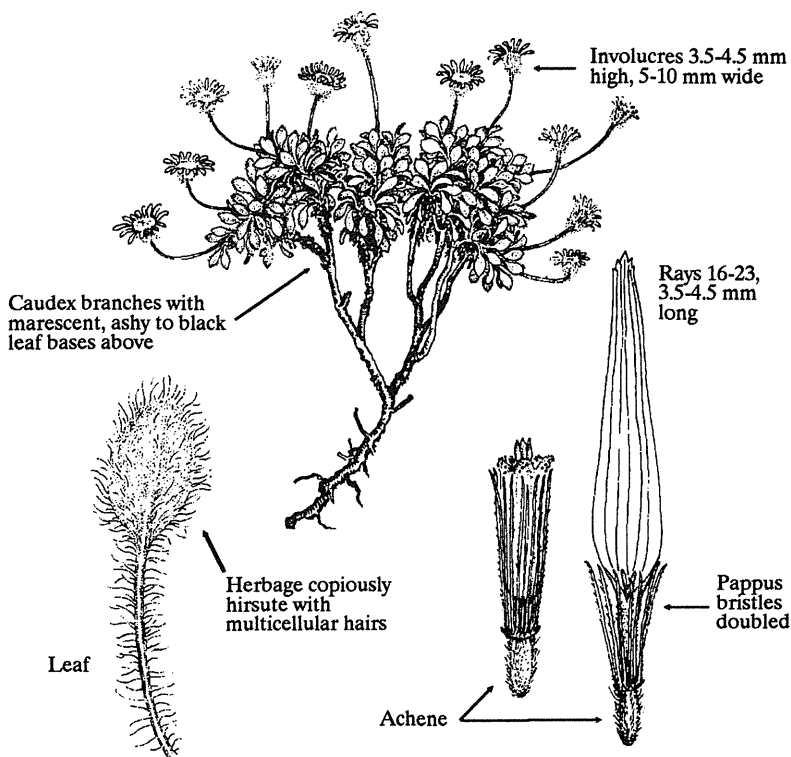
Habitat: Confined to rock ledges. Elevation between 10,000-10,500 feet, July.

Look-alikes: Closely resembling *D. sphaeroides* and *D. arida* but differing from these species by the numerous elongated caudex branches and basal leaves in elongated tufts.

Photo is missing

Species
Distribution





ERIGERON CAVERNENSIS

Scientific Name: *Erigeron cavernensis* Welsh & Atwood

Common Name: Snake Mountain erigeron

Family (common name): Asteraceae or Compositae (Sunflower Family)

Synonyms: None

Global Distribution: Endemic to White Pine County, Nevada

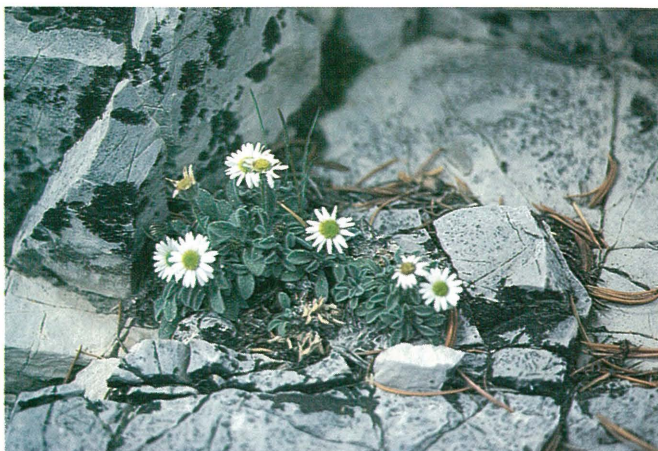
State Distribution: Cave Mountain in the Schell Creek Range and Currant Mountain, White Pine County, Nevada

Ownership: FS

Ranger District: Ely

Habitat: Limestone cliffs and rubble in *Pinus flexilis* and *Pinus longaeva* communities between 10,000-11,000 feet elevation, late June-early August.

Look-alikes: Related to *Erigeron simplex* but differs in its hirsute vestiture, shorter involucres (3.5-4.5 mm high), and in the more elongate caudex branches.



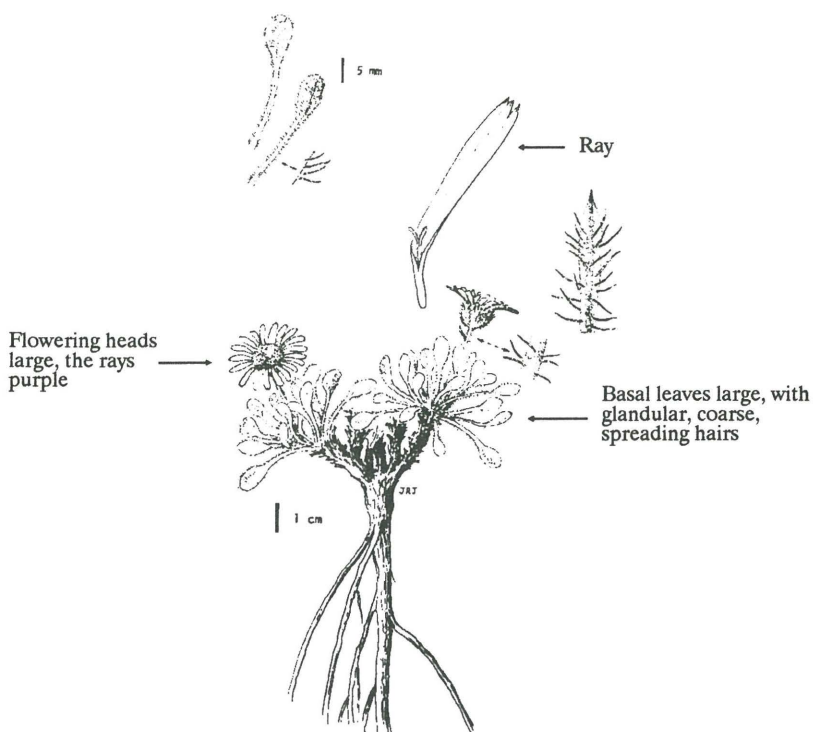
Closeup of *Erigeron cavernensis* by J. Whelan & W. Swenson



Habitat of *Erigeron cavernensis* by J. Whelan & W. Swenson

Species
Distribution





ERIGERON LATUS

Scientific Name: *Erigeron latus* (Nels. & Macbr.) Cronq.

Common Name: Broad fleabane

Family (common name): Asteraceae or Compositae (Sunflower Family)

Synonyms: *Erigeron poliospermus* var. *latus* Nels. & Macbr.

Global Distribution: Elko County in northern Nevada and Owyhee County, Idaho

State Distribution: Point of Rocks in northern Elko County, Nevada

Ownership: BLM, FS, and possibly private

Ranger District: Mountain City

Habitat: Thin soil on gravelly or rocky hillsides or volcanic sands in sagebrush-juniper communities at 6,400 feet elevation, July.

Look-alikes: Closely related to *Erigeron nanus* but our plant is much coarser with large flowering heads, the disk 10-20 mm broad with 8-10 mm long involucres and purple rays. The basal leaves are large with coarse spreading hairs.



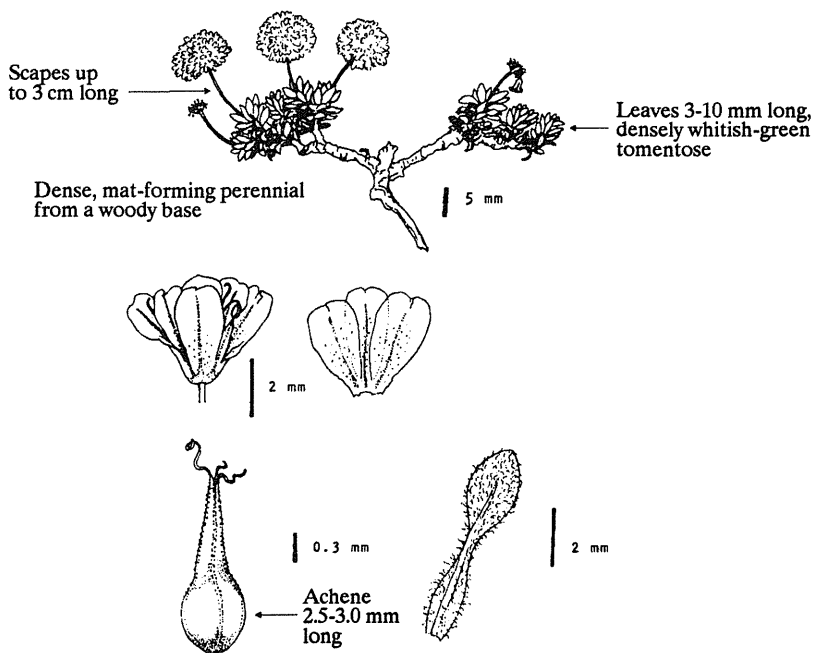
Closeup of *Erigeron latus* by L. Lake



Habitat of *Erigeron latus* by L. Lake

Species
Distribution





ERIOGONUM HOLMGRENII

Scientific Name: *Eriogonum holmgrenii* Reveal

Common Name: Holmgren buckwheat

Family (common name): Polygonaceae (Buckwheat Family)

Synonyms: None

Global Distribution: Endemic to White Pine County, Nevada

State Distribution: Known only from the Snake Range between Pyramid Peak and Lincoln Peak in White Pine County

Ownership: FS, NPS

Ranger District: Ely

Habitat: Restricted to talus quartzite slopes in crevices of granitic rocks and on limestone slopes in alpine turf of grass-forb communities. Elevation between 10,900-11,800 feet, July-August.

Look-alikes: Similar to *Eriogonum gracilipes*, but distinguished by the longer glandular (not woolly-glandular) flower stalks (3-8 cm long vs 1.2-3.2 cm long), 5-7 involucres, and glandular pedicels above.



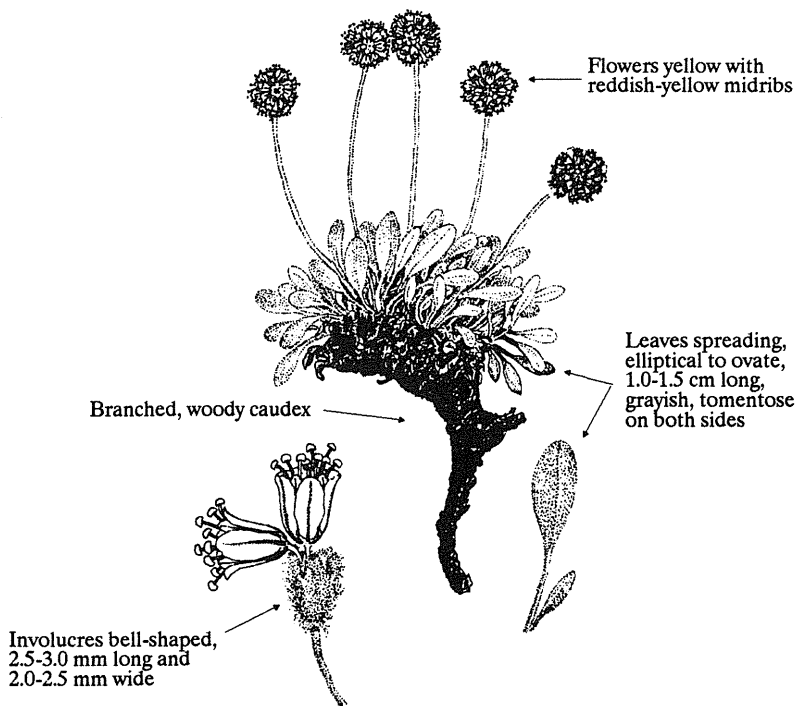
Closeup of *Eriogonum holmgrenii* by R.Johnson



Habitat of *Eriogonum holmgrenii* by M.Williams

Species
Distribution





ERIOGONUM LEWISII

Scientific Name: *Eriogonum lewisii* Reveal

Common Name: Lewis's buckwheat

Family (common name): Polygonaceae (Buckwheat Family)

Synonyms: None

Global Distribution: Endemic to northern Elko County, Nevada

State Distribution: Known only from Elk Mountain and the Independence Mountains of Elko County

Ownership: FS

Ranger District: Jarbidge and Mountain City

Habitat: Exposed rocky ridges with sagebrush at high elevations around 8,000 feet elevation, late June-early August.

Look-alikes: Similar to *Eriogonum desertorum* (of lower elevations) but differing in the floccose stems and involucre, small leaves, and high elevation habitat.



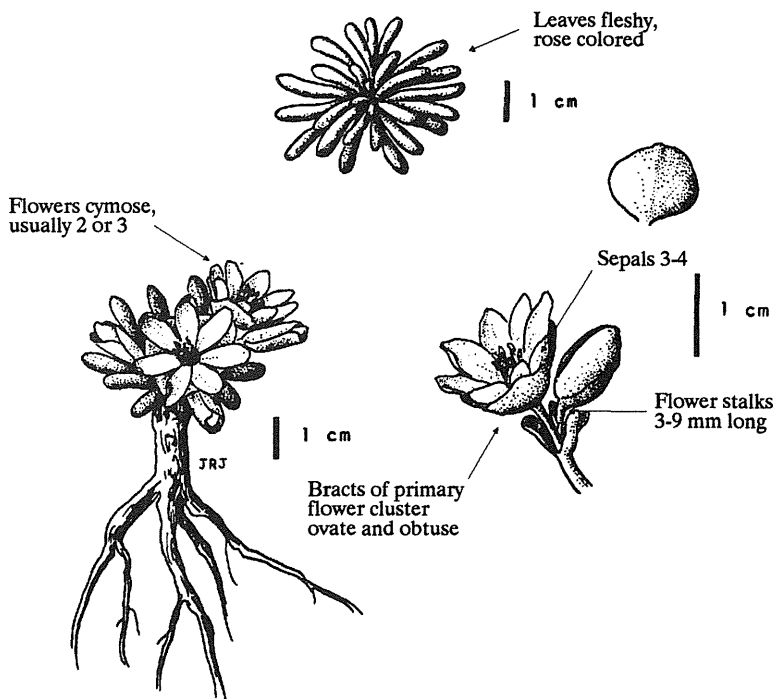
Closeup of *Eriogonum lewisii* by L. Lake



Habitat of *Eriogonum lewisii* by L. Lake

Species
Distribution





LEWISIA MAGUIREI

Scientific Name: *Lewisia maguirei* A. Holmg.

Common Name: Maguire lewisia

Family (common name): Portulacaceae (Purslane Family)

Synonyms: None

Global Distribution: Endemic in Nye County, Nevada

State Distribution: Known only from south facing slopes of Cherry Creek Summit of Quinn Canyon and Grant Range in Nye County

Ownership: FS

Ranger District: Ely

Habitat: Well-drained, fine-textured soil derived primarily from dolomite, near pinyon-juniper and sagebrush communities at 7,500-7,800 feet elevation, June.

Look-alikes: A distinct species recognized by its cymose inflorescence of 2-3 flowers, ovate and obtuse flower bracts, smaller flowers (8-12 mm long) than *L. rediviva* that occurs in the area. Maguire lewisia is most closely related to the Sierra species *L. disepala* with solitary flowers and 2 sepals (3-4 in *L. maguirei*).



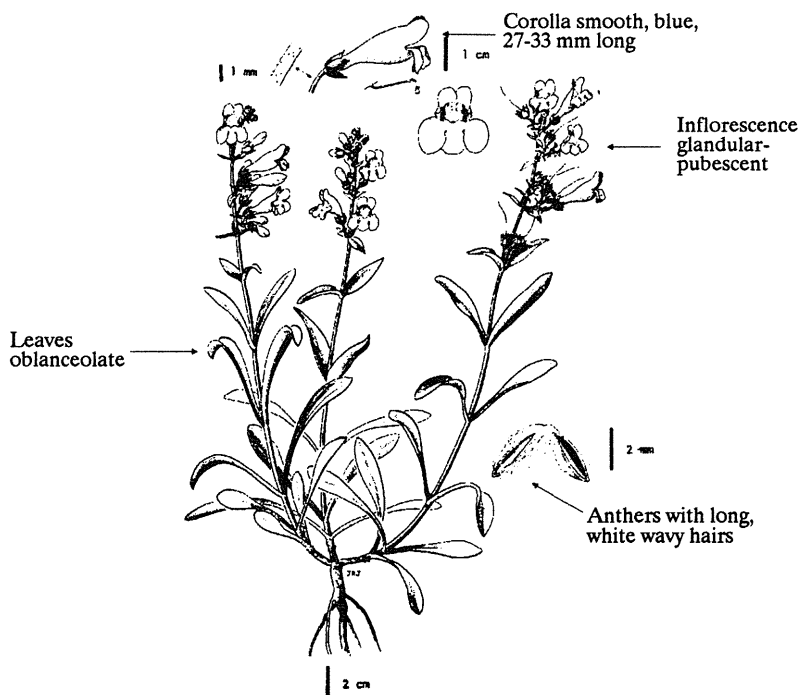
Closeup of *Lewisia maguirei* by M. Williams



Habitat of *Lewisia maguirei* by M. Williams



Species
Distribution



PENSTEMON MORIAHENSIS

Scientific Name: *Penstemon moriahensis* N. Holmg.

Common Name: Mt. Moriah penstemon

Family (common name): Scrophulariaceae (Figwort Family)

Synonyms: None

Global Distribution: Endemic to Nevada in White Pine and Nye counties

State Distribution: Known only from the northern Snake Range near Mount Moriah, White Pine County and White Pine Peak area, and Currant Mountain, Nye County

Ownership: FS

Ranger District: Ely

Habitat: Associated with sagebrush in mountain mahogany woodlands and open ponderosa pine communities at 8,200-9,200 feet elevation, June-July.

Look-alikes: This taxon is unique for species in the area by having long, white, wavy hairs on the anthers and a glandular-pubescent inflorescence.



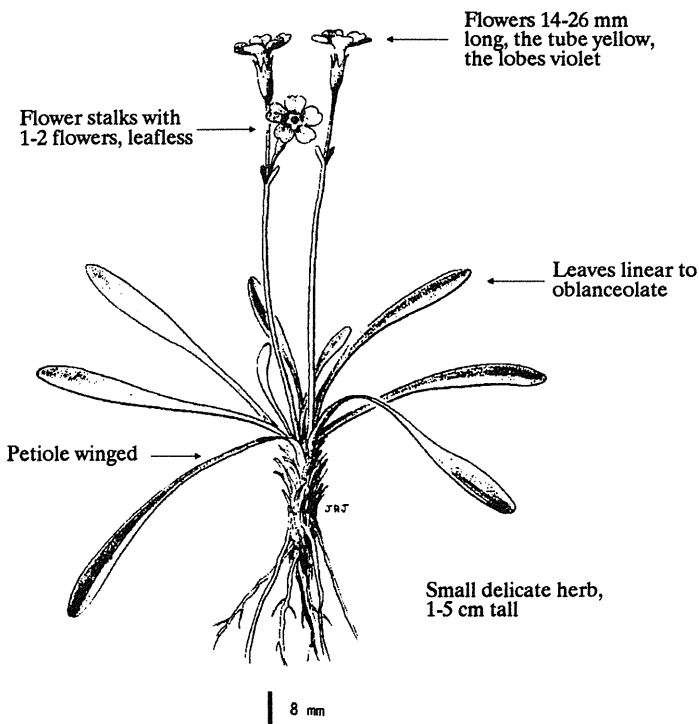
Habitat of *Penstemon moriahensis* Humboldt NF Photo



Closeup of *Penstemon moriahensis* Humboldt NF Photo

Species
Distribution





PRIMULA CAPILLARIS

Scientific Name: *Primula capillaris* N. Holmg. & A. Holmg.

Common Name: Ruby Mountain primrose

Family (common name): Primulaceae (Primrose Family)

Synonyms: None

Global Distribution: Endemic to Elko County, Nevada

State Distribution: Known only from the headwaters of Thomas Creek in the Ruby Mountains of Elko County

Ownership: FS

Ranger District: Ruby Mountains

Habitat: On soils of granitic origin in high mountain meadow growing in association with *Selaginella* mats on grass and sod with a north-facing exposure at 9,500-10,000 feet elevation, July-August.

Look-alikes: Distinct from all other species of primula in its miniature habit, flowers 14-26 mm long with yellow tubes and violet lobes, leafless flower stalks with 1-2 flowers, winged petioles and narrow linear to oblanceolate leaves.

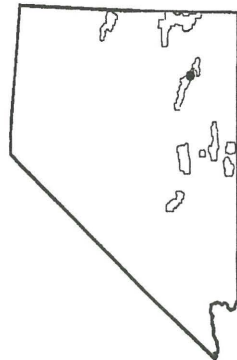


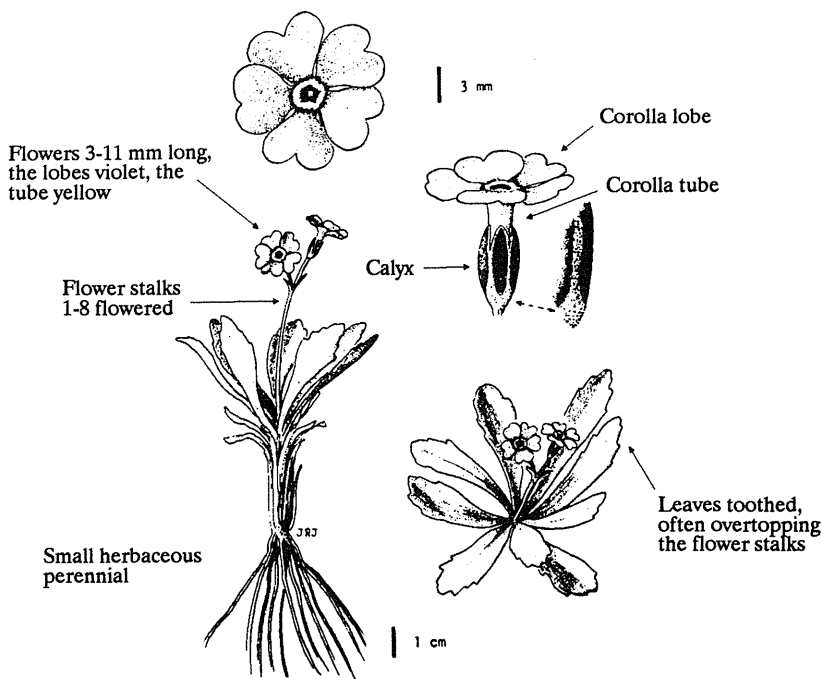
Habitat of *Primula capillaris* by M. Williams



Closeup of *Primula capillaris* by M. Williams

Species
Distribution





PRIMULA NEVADENSIS

Scientific Name: *Primula nevadensis* N. Holmg.

Common Name: Nevada primrose

Family (common name): Primulaceae (Primrose Family)

Synonyms: None

Global Distribution: Endemic to Nevada in Nye and White Pine counties

State Distribution: Restricted to Troy Peak of Grant Range, Nye County and Lincoln Peak and Mt. Washington of the Snake Range, White Pine County

Ownership: FS, NPS

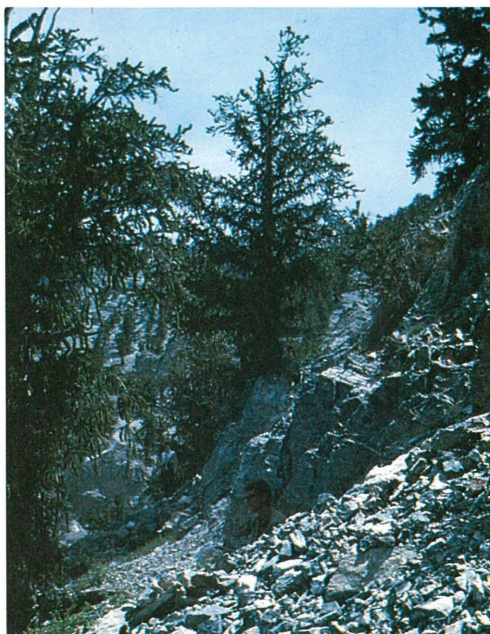
Ranger District: Ely

Habitat: Limestone talus, cracks of rocks, loam soil under *Pinus longavea*, and on alpine turf on all exposures. Elevation between 10,300-11,000 feet, July-August.

Look-alikes: Closely related to *P. maguirei* (Utah) and *P. cusickiana* (Idaho) but different in having a scape overtopped by the erect leaves which are 5-10 cm long.



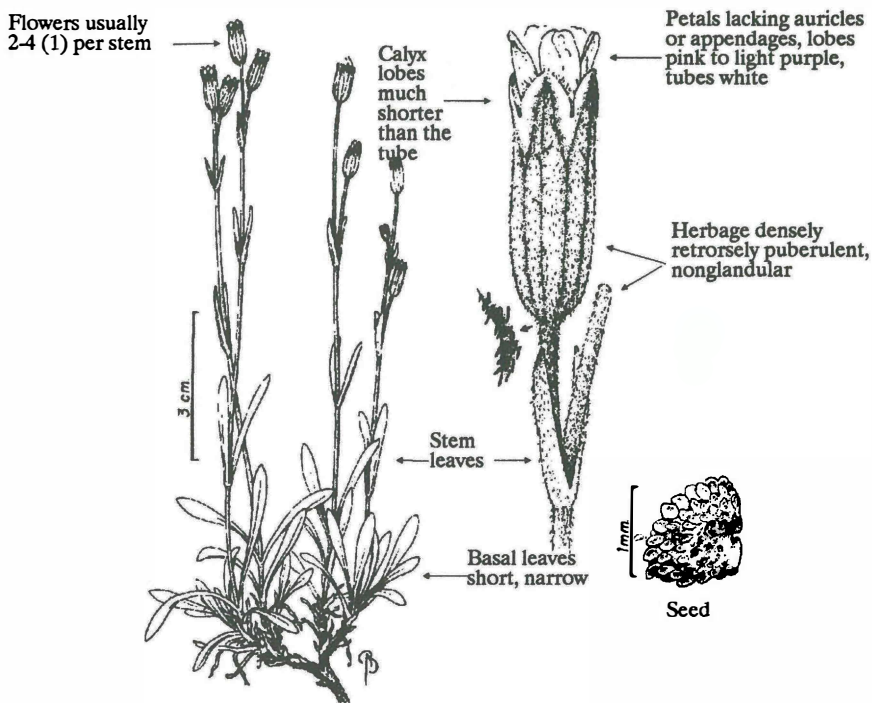
Closeup of *Primula nevadensis* by M. Williams



Habitat of *Primula nevadensis* by M. Williams

Species
Distribution





SILENE NACHLINGERAE

Scientific Name: *Silene nachlingerae* Tiehm

Common Name: Nachlinger silene

Family (common name): Caryophyllaceae (Pink Family)

Synonyms: None

Global Distribution: A Nevada endemic in Elko and Nye counties

State Distribution: Endemic in the Ruby Mountains, Elko County, and the Grant Range, Nye County

Ownership: FS

Ranger District: Ruby Mountains and Ely

Habitat: Limestone derived soils in pine communities at 9,600 feet elevation, July-August.

Look-alikes: Nachlinger silene can be differentiated from other species in its range by the densely retrorsely puberulent, nonglandular herbage and the petals lacking auricles or appendages. Closely related to *S. invis*a which is a taller, more robust plant with numerous stems, larger flowers and leaves, and glandular and nonglandular hairs.



Closeup of *Silene nachlingerae* Ely Ranger District Photo

Species
Distribution

